IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) An endovenous method of treating a varicose veins comprising the step of using a laser having a wavelength between about 1.2 and about 1.8 um to heat and shrink collagen in a varicosed vein and to destroy the functionality of ~~endothelial cells within~~ the varicose vein.

2. (Original) The method of claim 1 in which the laser energy is delivered with a fiber optic laser delivery device.

3. (Original) The method of claim 1 further comprising the following steps:

Inserting a fiber optic laser delivery device into the varicose vein;

Using a pullback device to retract the fiber optic laser delivery device through the varicose vein at a rate of between about 0.1 mm/sec and about 10.0 mm/sec while simultaneously delivering laser energy therefrom.

4. (Original) The method of claim 3 in which the fiber optic laser delivery device is retracted at a rate of between about 1.0 mm/sec and about 5.0 mm/sec.

5. (Original) The method of claim 3 in which the pullback device begins retraction of the fiber optic laser delivery device just prior to initiating delivery of the laser energy, thereby preventing the tip of the fiber, optic laser delivery device from sticking to the vessel wall.

6. (Previously Presented) The method of claim 1 further comprising the preliminary step of removing blood from the varicosed vein prior to treatment with laser energy.

7. (Original) The method of claim 2 in which the fiber optic laser delivery device is

introduced to the varicose vein through an introducer catheter.

8. (Original) The method of claim 2 in which the energy delivered through the fiber optic laser delivery device is evenly distributed by using a diffuse radiating-tip mounted to the distal end of the fiber optic laser delivery device.

9. (Original) The method of claim 2 in which an non-contact thermal sensor is used to maintain a desired temperature.

10. (Original) The method of claim 9 in which the thermal sensor is used to maintain a desired coagulation temperature.

11. (Original) The method of claim 9 in which the thermal sensor is used to maintain a desired collagen shrinkage temperature.

12. (Currently Amended) The method of claim 2 further comprising the step of using the fiber optic laser delivery device as a thermal sensing element.

13. (Original) The method of claim 9 further comprising the step of modulating the laser power based on the sensed temperature to maintain the desired temperature.

14. (Currently Amended) A system for endovenous treatment of varicose veins comprising the following:

A laser having a wavelength between about 1.2 and about 1.8 um; and

A fiber optic laser delivery device having a proximal end and a distal end, for delivery of laser energy from the distal end of the fiber optic laser delivery device to the inside wall of a varicose vein wherein the functionality of the varicose vein is ~~endothelial cells are~~ destroyed and collagen in the varicosed vessel wall can be heated and shrunk.

15. (Previously Presented) The system of claim 14 further comprising a pullback device which retracts the fiber optic laser delivery device through the varicose vein at a rate of between about 0.1 mm/sec and about 10.0 mm/sec.

16. (Previously Presented) The system of claim 14 further comprising means for administration of anesthesia to tissue surrounding the varicose vein, wherein the anesthesia causes swelling of the tissue surrounding the varicose vein which causes compression of the varicose vein in order to remove blood prior to treatment.

17. (Previously Presented) The system of claim 14 further comprising an introducer catheter in which an elongated lumen portion has a proximal end and a distal end, wherein the fiber optic laser delivery device is introduced to the introducer catheter through the proximal end and is introduced to the varicose vein through the distal end.

18. (Cancelled)

19. (Original) The system of claim 18 further comprising a diffusing tip at the distal end of the introducer catheter for providing even distribution of energy radiating during treatment.

20. (Original) The system of claim 18 further comprising a diffusing tip at the distal end of the fiber optic laser delivery device for providing even distribution of energy radiating during treatment.

21. (Original) The system of claim 14 further comprising an non-contact thermal sensor.

22. (Original) The system of claim 21 further comprising a controller coupled to the thermal sensor for controlling the temperature in a region near the distal end of the fiber optic laser delivery device.

23. (Original) The system of claim 22 in which the controller modulates a power input to the laser for controlling the temperature in a region near the distal end of the fiber optic laser delivery device.

24. (Cancelled)

25. (Currently Amended) An endovenous method of treating varicose veins with laser energy to heat and shrink collagen in the vein and to destroy the endothelial cells within the varicosed vein, the method comprising the following steps:

Inserting a laser delivery device into the varicose vein;

Delivering laser energy having a wavelength between about 1.2 and about 1.8 um to the varicose vein; and

Retracting the laser delivery device through the varicose vein, thereby heating and shrinking the collagen in the vein and destroying the functionality ~~endothelial cells in~~ of the varicose vein.

Please add the following claims:

26. (new) The method of claim 1 wherein the laser has a wavelength of about 1.32 um.

27. (new) The system of claim 14 wherein the laser has a wavelength of 1.32 um.

28. (new) The method of claim 25 wherein the laser energy has a wavelength of about 1.32. um.